Davenport, Iowa

September 2010

"I certify, to the best of my knowledge and belief, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to evaluate the information submitted. I certify, to the best of my knowledge and belief, that the information contained in or accompanying this submittal is true, accurate, and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify, to the best of my knowledge and belief, that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: X

Name:

James R. Grafton

Title:

President

Date:

11-2-10

506566

RCRA

Davenport, Iowa

| September 2010   |  |  |
|--|--|--|
| il (1)   | 10/19  | =/10   |
| Prepared by: William Carberry                                      | Date:  | ;  |
| Reviewed by:   | Date:  |  |
| Reviewed by:   | Date:  |  |
| I hereby certify that this plan, spersonal supervision, and that I | pecification or report was prepar<br>am a duly licensed Professional | red by me or under my direct<br>Engineer under the laws of the |

State of Iowa.

Howard Scott Byram, P.E.

Iowa Registration No. 10454

My Registration Expires 12-31-11

### Section 1

#### Introduction

This RCRA Construction Completion Report (CCR) has been prepared in accordance with U.S. Environmental Protection Agency (EPA) Administrative Order on Consent for Corrective Measures Implementation (CMI), Docket No. RCRA-07-2008-0007, by Blackhawk Foundry and Machine Company. The purpose of this report is to document corrective measures, specifically soil removal and sampling, carried out at the Blackhawk Foundry and Machine Company facility in Davenport, Iowa (the site), as outlined by the approved CMI Work Plan, dated November 2009. The work plan was approved by the EPA in December 2009. These corrective measures were performed at the site in April 2010 in general accordance with the CMI Work Plan.

Blackhawk initially came to the attention of US EPA during the mid 1980's, when Blackhawk was storing/dewatering a waste material (air pollution control scrubber sludge) in a surface impoundment on site prior to disposal off site. Based on EP Toxicity testing the sludge on occasion exceeded the limit for lead in the extract, causing the material to be a D007 hazardous waste. The former location of the surface impoundment (pit) is shown on the attached site plan (Figure 1.).

Among its raw materials Blackhawk used scrap steel and iron. The source of the lead in the sludge was a contaminant in the scrap, probably lead containing paint on the scrap steel. Upon discovering this problem, Blackhawk implemented scrap control procedures which effectively eliminated the EP Toxicity problem. The impoundment was not used for waste management after 1985.

Blackhawk subsequently initiated closure activities including an evaluation of soil in and around the surface impoundment, and an evaluation of groundwater in the surface impoundment area. The soils evaluation included a soil sampling program in and around the surface impoundment. These results indicated that soil removal would be necessary to obtain closure of the impoundment.

Contaminated soils in and around the surface impoundment were subsequently removed on three separate occasions during August and September 1988. Prior to soil removal the dimensions of the surface impoundment were approximately 24-ft wide by 36-feet long by 6-feet (maximum) deep. After completion of the last soil removal the dimensions of the impoundment were approximately 6- feet wide by 45-feet long by 10-feet (maximum) deep. Samples of the sides and bottom of the impoundment were collected and analyzed on three occasions. All of these activities were documented in the closure report for the facility. In 1996 the surface impoundment was filled with clay, in preparation for facility expansion. Subsequent construction of an addition to the Blackhawk building, and associated pavement have covered the former surface impoundment area with impervious surface.

Groundwater was evaluated over a number of years and determined not to be a concern. These results have been submitted to EPA previously, and are not duplicated here.

Subsequent to the completion of the closure activities EPA requested Blackhawk perform a RCRA Facility Investigation and Corrective Measures Study (RFI/CMS) for the facility. Blackhawk initially undertook these activities during 1997.

The concern at the facility was contamination of surface soils by the metals lead, cadmium, and chromium. In order to evaluate the extent of contamination at the facility a series of surface soil samples were collected at a number of locations on the property for laboratory analysis. These activities were performed in accordance with a work plan approved by EPA.

The results of the RFI indicated that the observed levels of lead in several areas on the site were generally higher than the old closure performance standard, but, in all but one location, below the health-based level of concern for residential land use. The observed levels for cadmium and chromium were in most cases at or below their respective closure performance standards, within their respective ranges for uncontaminated soils, and well below the published health-based levels.

Subsequent to the RFI a Corrective Measures Study (CMS) report was prepared describing the proposed corrective action objectives and corrective action alternatives for the facility. Those results are summarized below.

Subsequent soil sampling by EPA conducted during late 2007 generally confirmed the results of the RFI activities, and identified within the area of concern several hot spots with lead concentrations that exceeded the health-based level of concern for residential land use (400 parts per million (ppm)) and one hot spot with a lead concentration that exceeded the health-based level of concern for industrial land use (800 ppm). These results were reported by SES, Inc. in their January 15, 2008 Data Summary Report - November 2007 Sampling - Blackhawk Foundry Davenport, Iowa - EPA No. IAD005264049.

The hot spots exceeding the health-based level of concern for residential land use are located northeast of the main foundry building, in Areas A4, B3 and B4, as delineated in Figure 1. The lone hot spot that exceed the health based level of concern for industrial land use was located in Area B4. The locations of these hot spots are also located as shown in Figure 6 and Figure 7 of the SES Data Summary Report. These two drawings, attached for reference, indicate the approximate locations of these hot spots.

The lone hot spot with a lead concentration exceeding 800 ppm was SES sample location #6, located in Area B3 (SES-Figure 7), with a lead concentration of 823 ppm at 0 to 6-inches below grade (bg). The three remaining hot spots with lead levels exceeding 400 ppm were: sample location #36 (with 423 ppm lead at 0 to 6-inches bg) located in Area B3 (Figure 7); location #55 (with 534 ppm lead at 0 to 6-inches bg), located in Area B4 (Figure 7); and SES sample #101 (with 429 ppm lead at 7.5 to 8-feet bg), located in Area B4 at sample location #100 (Figure 6.)

The CMI Work Plan specified remediation of the lone hot spot, located in Area B4, with a lead concentration that exceeded 800 ppm, the health-based level of concern for industrial land use. Lead levels in samples collected immediately surrounding location #6, including samples #3,#4,#5,#7 and #9, were all below the industrial corrective action objective (800 ppm), and were also below the residential corrective action objective (400 ppm).

### Section 2

### Soil Removal and Sampling

Within the B4 area only sample location #6 exceeded the industrial corrective action objective for lead. According to the CMI Work Plan, Blackhawk was to remove soil from the portion of the B4 area surrounding sample location #6 to alleviate concerns related to residual lead contamination.

Following removal of stored coke covering the area of concern during the month of March, sample location #6, and the surrounding sample locations #3, #4, #5, #7 and #9 were located in the field on April 2, 2010 by William Carberry, and Blackhawk personnel, including Don Resel, Facility Engineer and Larry Thompson, Environmental Coordinator, retired. All the sample locations of concern were located within the concrete pavement in Areas B3 and B4. The coreholes from the 2007 EPA soils investigation were visible following removal of stored coke. These locations were marked and photographed. A photographic log of these activities and other corrective measure activities are attached as an appendix.

Excavation limits area around location #6 were delineated by locating the half-way point between location #6 and the surrounding sample locations. The five-sided pentagon-shaped excavation limits were then marked and photographed (see photographic log). The length of sides of the pentagon ranged from 9.7-feet to 15.7-feet.

The Scott County Health Department was notified by telephone message on April 2, 2010 that excavation of lead contaminated soil would be undertaken at Blackhawk during the first week of April, 2010, weather permitting. Mr. Larry Linnenbrink, Coordinator of Environmental Services for the Department indicated receipt of the notification, with no concerns, in a subsequent telephone call.

Cornerstone Construction of Bluegrass, Iowa was contracted by Blackhawk to excavate the soil surrounding location #6, remove overlying concrete, and dispose of the soil and concrete rubble. Cornerstone was provided a copy of the CMI Work Plan to ensure all work was performed in accordance with the plan.

On April 6, 2010 Cornerstone mobilized to the site at 07:00 hours and removed the overlying concrete using concrete saws, track mounted jackhammer, backhoe and skid-loader. The 8-inch concrete slab was removed in approximately four hours and stockpiled adjacent to the excavation.

Weather conditions at 08:00 hours were overcast, following light overnight rains, with little or no wind and temperatures in the low 60's. The sky cleared by late morning with temperature in the upper 60's for the remainder of the day, with mild easterly winds. Observation of on-site corrective measure activities was provided by William Carberry.

Following removal of the concrete, the underlying gravel base and soil was excavated to a depth of approximately 30-inches below the base of the concrete slab. The gravel base layer was approximately 2-inches in thickness. The excavation was completed by 12:30 hours. The excavated soil and gravel was stockpiled on poly-sheeting adjacent to the excavation, to await

the results of TCLP-lead analysis in order to determine the appropriate disposal method. Immediately following completion of soil stockpiling, soils adhering to excavation equipment were removed (swept) and disposed into the excavation.

A composite sample (STP-1) of the stockpiled soil was collected for laboratory analysis for TCLP- lead. Following sample collection the stockpiled soil was immediately covered with poly-sheeting to prevent generation of dust and/or potentially contaminated runoff during storage.

Seven soil samples were then collected from the base of the excavation for laboratory analysis for total lead. Five samples (S-1 through S-5) were collected along the outer edge of the excavation, and two samples (S-6 and a duplicate) were collected in the center of the excavation, at the location #6 hotspot. The samples were collected from the soils within the first 2-inches of the base of the excavation. Sample S-1 was collected from the southwest edge of the excavation, and moving counter-clockwise around the excavation, sample S-2 was collected from the southern edge, S-3 from the southeast edge, S-4 from the northeast edge and S-5 from the northwest edge.

The samples were collected using dedicated stainless steel spoons into 4 ounce glass jars with Teflon-lined lids, provided by the laboratory. Immediately following sample collection, the samples were stored in an iced-cooler for storage prior to overnight transport to the laboratory.

Prior to transport to the laboratory the samples were packed in an iced cooler which was then sealed to prevent tampering. The sample cooler was shipped April 6, 2010 via over-night courier to TestAmerica, Inc. in Cedar Falls, Iowa for laboratory analysis and received the next day at 09:42 hours at 3.6 degrees Celsius, per sample receipt log form, with custody seals present and intact.

Samples were collected, packaged, preserved, and handled in general accordance with EPA Publication SW-846, Test Methods for Evaluating Solid Waste.

Following sample collection the excavation was backfilled with ¾-inch limestone gravel, level with the surrounding concrete slab.

### **Section 3**

### Sample Analysis and Analytical Results

Seven of the soil samples (S-1 through S-6, and the duplicate) were analyzed for total lead. The sample from the excavated soil stockpile was analyzed for TCLP-lead. Laboratory analysis was performed in accordance with US EPA Publication SW-846. A copy of the laboratory report, including documentation of adherence to US EPA chain-of-custody procedures, is attached as an appendix. An electronic copy of the laboratory report was provided to Cynthia Hutchison, US EPA, via email on June 6, 2010.

The results of the TCLP analysis of the STP-1 sample, as summarized in the following table, indicated lead was **not** detected in the TCLP extract above the laboratory reporting limit of 0.500 milligrams per liter (mg/L). As the lead level in the TCLP extract was below the 5 mg/L

threshold for lead the stockpiled soils at the site were not required to be managed or disposed as hazardous waste.

Corrective Measures Soil Sample Analytical Results for TCLP-Lead (mg/L) Blackhawk Foundry and Machine Company, Davenport, Iowa - April, 2010

| Sample ID | Lead    |
|-----------|---------|
| STP-1     | < 0.500 |

Reporting limits for analysis of TCLP extract were 0.500 mg/L. < indicates lead level in TCLP extract was below reporting limit.

The results of the analysis for total lead in the remaining seven soil samples (S-1 through S-6 and the duplicate sample) indicated lead present in all seven samples, at levels ranging from 10.2 mg/L in sample S-5 to 333 mg/L in the duplicate sample (Dup, duplicate of S-6). The total lead level in sample S-6 was reported to be 138 mg/L. These results are summarized in the following table. Concentration units mg/L are equivalent to parts per million (ppm) for solid materials.

Corrective Measures Soil Sample Analytical Results for Total Lead (mg/L) Blackhawk Foundry and Machine Company, Davenport, Iowa - April, 2010

| Sample ID | Total Lead |
|-----------|------------|
| S-1       | 26.6       |
| S-2       | 16.4       |
| S-3       | 13.5       |
| S-4       | 17.3       |
| S-5       | 10.2       |
| S-6       | 138        |
| Dup       | 333        |

Reporting limits for total lead analysis were 0.100 mg/L.

Based on these results the corrective action objective of removal of soils from the site exceeding the health-based level of concern for industrial land use (800 ppm of lead) was met.

These corrective measure activities carried out at the site also reduced the lead level in the soil in the area immediately surrounding location #6 to below the health-based level of concern for residential land use of 400 ppm.

### **Section 4**

### Soil Disposal

Based the results of the TCLP analysis the stockpiled soils at the site were not required to be managed or disposed as hazardous waste, as expected. The stockpiled soil could therefore be hauled to the Scott Area Landfill for disposal.

As the excavated soils were not expected to fall under hazardous waste regulations, the Scott Area Landfill was contacted prior initiation of corrective measures at the site. Based on information regarding known lead levels in soils at the site, Keith Krambeck, Special Waste Manager for the Waste Commission of Scott County (WCSC), determined the soils from the site would not fall under the definition for an Iowa Special Waste, but would be classified as a non-special waste. The WCSC had previously developed separate specific procedures and documentation for non-special wastes for their use for disposal of such waste materials at the Scott Area Landfill. For reference, the Scott Area Landfill has received from the EPA a letter of Affirmative Determination of Acceptability, per the CERCLA Off-Site Rule, dated March 5, 2010.

The Scott Area Landfill non-special waste procedures were followed, including submittal on April, 19, 2010 of TCLP analytical reports and a completed Non-Special Waste Disposal Approval Form. Approval for disposal of the excavated soils was granted by Mr. Krambeck on April 20, 2010. A copy of the approved Scott Area Landfill Non-Special Waste Disposal Approval Form is appended to this report.

On April 21, 2010, the soil stockpiled at the site was transported to the Scott Area Landfill for disposal. Prior to loading the stockpiled soil, each truck box was lined with poly-sheeting to prevent loss of contaminated soil prior to reaching the working face at the landfill. Each load was covered with tarps prior to leaving the site and during transport to the landfill. Immediately following completion of stockpile load-out, soils adhering to loading equipment were removed (swept) and disposed into the gravel-filled excavation.

A total of five truck loads of material, including four loads of soil and 1 load of concrete rubble, were transported to the landfill. A total of 38.98 tons of soil were disposed, as were 9.51 tons of concrete rubble. Weight tickets documenting disposal totals are appended to this report.

### **Section 5**

### Conclusion

Based on the corrective measures carried out at the site, in conformance with the approved CMI Work Plan, the corrective action objective of removal of soils from the site exceeding the health-based level of concern for industrial land use of 800 ppm of lead was met.

Furthermore, the corrective measure activities carried out at the site also reduced the lead level in the soil in the area immediately surrounding location #6 to below the health-based level of concern for residential land use of 400 ppm.

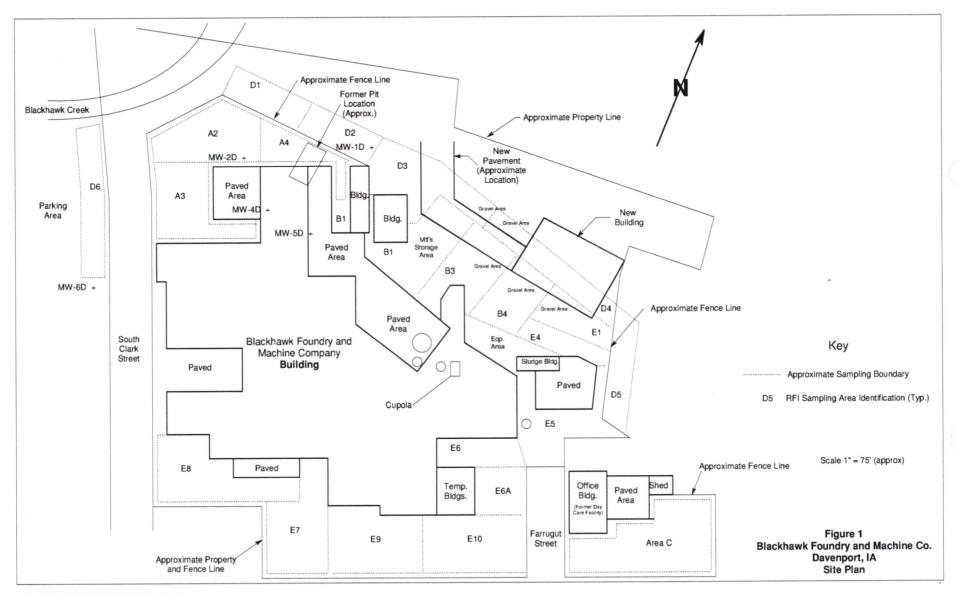


FIGURE 6. LEAD CONCENTRATIONS AREA A-4

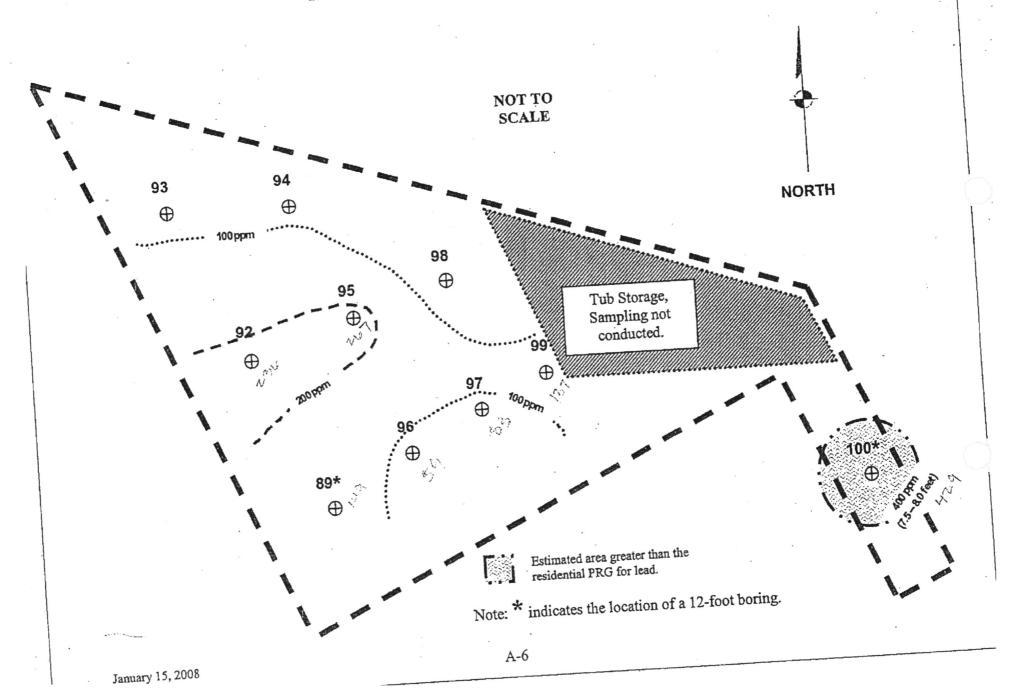
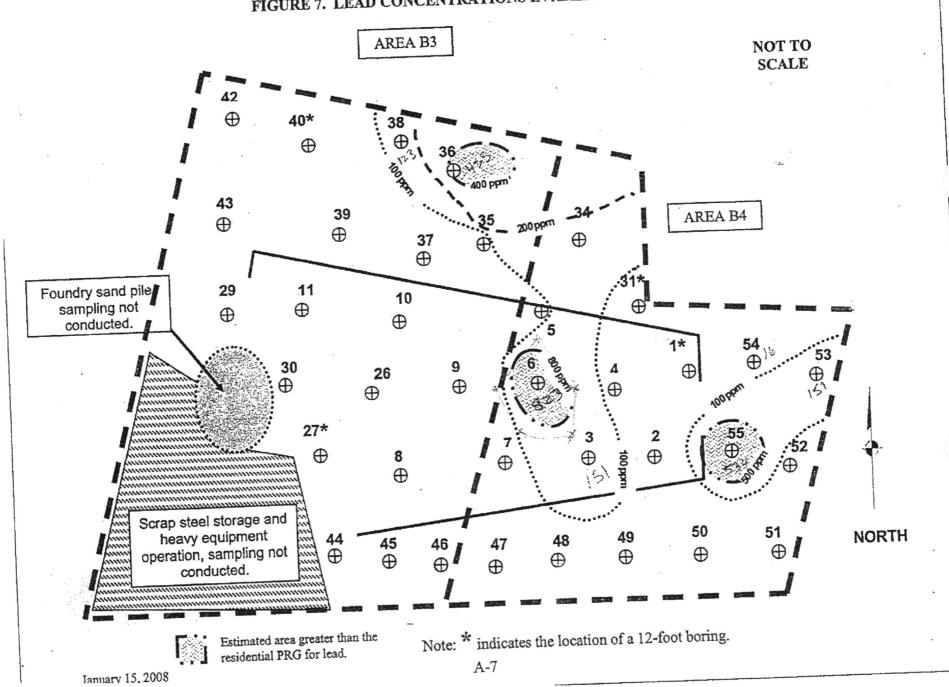


FIGURE 7. LEAD CONCENTRATIONS IN AREAS B-3 and B-4



Davenport, Iowa



Delineated excavation limits. Remaining coke stockpile to east. Facing northeast, April 2, 2010.



Delineated excavation limits. Remaining coke stockpile in background. Facing east, April 2, 2010.

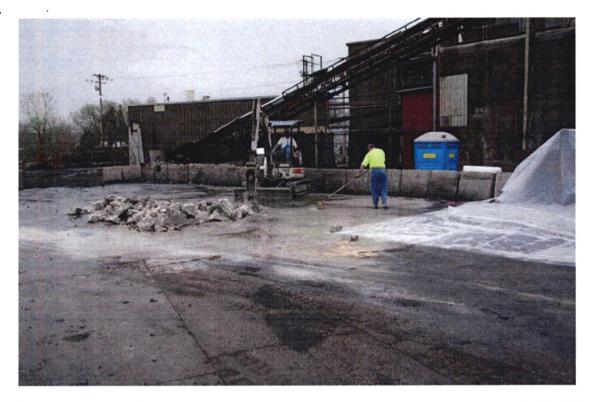


Delineated excavation limits. Remaining coke stockpile in background . Facing southeast, 4/2/10



Concrete breaking with track mounted hammer. Facing east, April 2 2010.

Davenport, Iowa



Concrete breaking. Poly-sheeting to right for soil stockpile storage. Facing southeast, April 6 2010.



Removal of concrete. Facing southeast, April 6, 2010.



Cutting reinforcing wire. Facing northeast, April 6, 2010.



Concrete slab, reinforcing wire and gravel base layer, April 6, 2010.

Davenport, Iowa



Excavation of gravel base and underlying soil, April 6, 2010.



Soil excavation, April 6, 2010.



Soil excavation. Facing west, April 6, 2010.

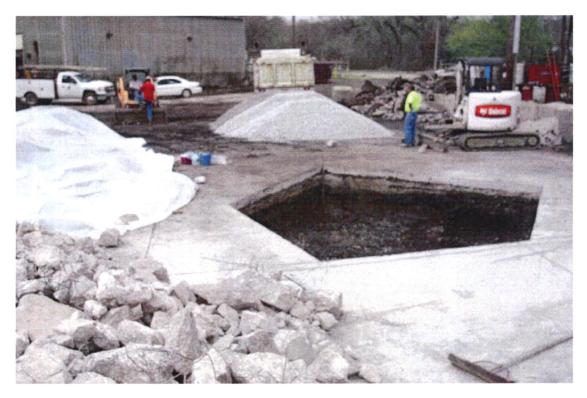


Soil stockpiling. Facing southwest, April 6, 2010.

Davenport, Iowa



Completed excavation and sampling equipment. April 6, 2010.



Completed excavation, covered soil stockpile and gravel backfill. Facing west, April 6, 2010.

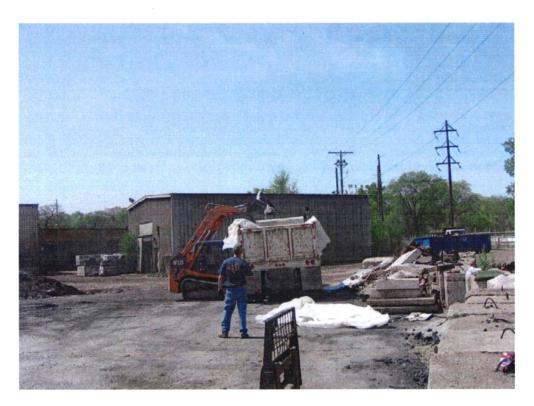


Backfilling excavation. Facing west, April 6, 2010



Backfilling of excavation nearly complete. Covered soil stockpile. Facing southwest, April 6, 2010.

Davenport, Iowa



Loading stockpiled soil to poly-lined truck, April 20, 2010.



Loading stockpiled soil, April 20, 2010.



Tarpping truck loaded with stockpiled soil, April 20, 2010.



Tarpped truck, loaded with stockpiled soil, April 20, 2010.



April 16, 2010

Client:

ERM - IOWA CITY Work Order: CTD0360
943 Cottonwood Avenue Project Name: Blackhawk CMI

Iowa City, IA 52240 Project Number: [none]

Attn: Bill Carberry Date Received: 04/07/10

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

| SAMPLE IDENTIFICATION | LAB NUMBER | COLLECTION DATE AND TIME |
|-----------------------|------------|--------------------------|
| S-1                   | CTD0360-01 | 04/06/10 12:42           |
| S-2                   | CTD0360-02 | 04/06/10 12:38           |
| S-3                   | CTD0360-03 | 04/06/10 12:35           |
| S-4                   | CTD0360-04 | 04/06/10 12:30           |
| S-5                   | CTD0360-05 | 04/06/10 12:45           |
| S-6                   | CTD0360-06 | 04/06/10 13:00           |
| Dup                   | CTD0360-07 | 04/06/10 13:00           |
| STP-1                 | CTD0360-08 | 04/06/10 13:15           |

#### Samples were received into laboratory at a temperature of 3.60 °C.

NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted. Iowa Certification Number: 007

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.



704 Enterprise Drive Cedar Falls, IA 50613 \* 800-750-2401 \* Fax 319-277-2425

ERM - IOWA CITY 943 Cottonwood Avenue Iowa City, IA 52240 Bill Carberry Work Order:

CTD0360

Received: Reported: 04/07/10

04/16/10 07:47

Project:

Blackhawk CMI

Project Number:

[none]

Approved By:

**TestAmerica Cedar Falls** Shirley Thompson

Project Manager



THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive Cedar Falls, IA 50613 \* 800-750-2401 \* Fax 319-277-2425

ERM - IOWA CITY 943 Cottonwood Avenue Iowa City, IA 52240 Bill Carberry

Work Order:

Project:

CTD0360

Received: Reported: 04/07/10

04/16/10 07:47

Blackhawk CMI

Project Number: [none]

### ANALYTICAL REPORT

|                                       |        | _          |           |             |          |                |                       |                   |               |  |  |
|---------------------------------------|--------|------------|-----------|-------------|----------|----------------|-----------------------|-------------------|---------------|--|--|
|                                       | Sample | Data       | ** *:     | Quan. Limit |          | Date           |                       | Seq/              |               |  |  |
| Analyte                               | Result | Qualifiers | Units     |             | Factor   | Analyzed       | Analyst               | Batch             | Method        |  |  |
| Sample ID: CTD0360-01 (S-1 - Soil)    |        |            |           |             | Sampled: | 04/06/10 12:42 | Rec                   | vd: 04/07         | 10 09:42      |  |  |
| General Chemistry Parameters          |        |            |           |             |          |                |                       |                   |               |  |  |
| % Solids                              | 82.5   |            | %         | 0.100       | 1        | 04/08/10 13:34 | sas                   | 10D0260           | SM 2540 G     |  |  |
| Total Metals by SW 846 Series Methods |        |            |           |             |          |                |                       |                   |               |  |  |
| Lead                                  | 26.6   |            | mg/kg dry | 6.06        | 0.983    | 04/13/10 00:33 | cjt                   | 10D0371           | SW 6010B      |  |  |
| Sample ID: CTD0360-02 (S-2 - Soil)    |        |            |           |             | Sampled: | 04/06/10 12:38 | Rec                   | vd: 04/07         | 10 09:42      |  |  |
| General Chemistry Parameters          |        |            |           |             |          |                |                       |                   |               |  |  |
| % Solids                              | 81.6   |            | %         | 0.100       | 1        | 04/08/10 13:34 | sas                   | 10D0260           | SM 2540 G     |  |  |
| Total Metals by SW 846 Series Methods |        |            |           |             |          |                |                       |                   |               |  |  |
| Lead                                  | 16.4   |            | mg/kg dry | 6.13        | 0.964    | 04/13/10 00:38 | cjt                   | 10D0371           | SW 6010B      |  |  |
| Sample ID: CTD0360-03 (S-3 - Soil)    |        |            |           |             | Sampled: | 04/06/10 12:35 | Rec                   | vd: 04/07         | 10 09:42      |  |  |
| General Chemistry Parameters          |        |            |           |             |          |                |                       |                   |               |  |  |
| % Solids                              | 81.3   |            | %         | 0.100       | 1        | 04/08/10 13:34 | sas                   | 10D0260           | SM 2540 G     |  |  |
| Total Metals by SW 846 Series Methods |        |            |           |             |          |                |                       |                   |               |  |  |
| Lead                                  | 13.5   |            | mg/kg dry | 6.15        | 0.91     | 04/13/10 00:48 | cjt                   | 10D0371           | SW 6010B      |  |  |
| Sample ID: CTD0360-04 (S-4 - Soil)    |        |            |           |             | Sampled: | 04/06/10 12:30 | Rec                   | vd: 04/07         | 4/07/10 09:42 |  |  |
| General Chemistry Parameters          |        |            |           |             |          |                |                       |                   |               |  |  |
| % Solids                              | 80.6   |            | %         | 0.100       | 1        | 04/08/10 13:34 | sas                   | 10D0260           | SM 2540 G     |  |  |
| Total Metals by SW 846 Series Methods |        |            |           |             |          |                |                       |                   |               |  |  |
| Lead                                  | 17.3   |            | mg/kg dry | 6.20        | 0.978    | 04/13/10 00:58 | cjt                   | 10D0371           | SW 6010B      |  |  |
| Sample ID: CTD0360-05 (S-5 - Soil)    |        |            |           |             | Sampled: | 04/06/10 12:45 | Rec                   | vd: 04/07         | 10 09:42      |  |  |
| General Chemistry Parameters          |        |            |           |             | oumpieu. | 0.770710 12.10 |                       |                   |               |  |  |
| % Solids                              | 81.5   |            | %         | 0.100       | 1        | 04/08/10 13:34 | sas                   | 10D0260           | SM 2540 G     |  |  |
| Total Metals by SW 846 Series Methods |        |            |           |             |          |                |                       |                   |               |  |  |
| Lead                                  | 10.2   |            | mg/kg dry | 6.13        | 0.96     | 04/13/10 01:18 | cjt                   | 10D0371           | SW 6010B      |  |  |
| Sample ID: CTD0360-06 (S-6 - Soil)    |        |            |           |             | Sampled: | 04/06/10 13:00 | Recvd: 04/07/10 09:42 |                   |               |  |  |
| General Chemistry Parameters          |        |            |           |             | Sampicu. | 04/00/10 13:00 | 1100                  |                   | 20 07112      |  |  |
| % Solids                              | 84.2   |            | %         | 0.100       | 1        | 04/08/10 13:34 | sas                   | 10D0260           | SM 2540 G     |  |  |
| Total Metals by SW 846 Series Methods |        |            |           |             |          |                |                       |                   |               |  |  |
| Lead                                  | 138    |            | mg/kg dry | 59.4        | 9.2      | 04/13/10 14:55 | cjt                   | 10D0371           | SW 6010B      |  |  |
| Sample ID: CTD0360-07 (Dup - Soil)    |        |            |           |             | Sampled  | 04/06/10 13:00 | Rec                   | vd: 04/07         | /10 09-42     |  |  |
| General Chemistry Parameters          |        |            |           |             | Sampieu. | 04/00/10 13:00 | nee                   | <b>va.</b> 04/0// | 10 05.42      |  |  |
| % Solids                              | 84.6   |            | %         | 0.100       | 1        | 04/08/10 13:34 | sas                   | 10D0260           | SM 2540 G     |  |  |
| Total Metals by SW 846 Series Methods |        |            |           |             |          |                |                       |                   |               |  |  |
| Lead                                  | 333    |            | mg/kg dry | 5.91        | 0.929    | 04/13/10 01:28 | cjt                   | 10D0371           | SW 6010B      |  |  |
| Sample ID: CTD0360-08 (STP-1 - Soil)  |        |            |           |             | Complede | 04/06/10 13:15 | Dag                   | vd: 04/07         | 10 09:42      |  |  |
| TCLP Metals                           |        |            |           |             | sampled: | 04/06/10 13:15 | Rec                   | vu. 04/0//        | 10 07.44      |  |  |
| Lead                                  | <0.500 |            | mg/L      | 0.500       | 5        | 04/14/10 19:08 | cjt                   | 10D0524           | SW 6010B      |  |  |
| TCLP Extraction by EPA 1311           |        |            |           |             |          |                |                       |                   |               |  |  |
| TCLP Extraction Temp. Minimum         | 21.4   |            | °C        | NA          | 1        | 04/14/10 10:53 | tjt                   | 10D0442           | SW 1311       |  |  |
| TCLP Extraction Temp. Maximum         | 24.9   |            | °C        | NA          | 1        | 04/14/10 10:53 | tjt                   | 10D0442           | SW 1311       |  |  |
|                                       |        |            |           |             |          |                |                       |                   |               |  |  |



THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive Cedar Falls, IA 50613 \* 800-750-2401 \* Fax 319-277-2425

ERM - IOWA CITY 943 Cottonwood Avenue Iowa City, IA 52240 Bill Carberry Work Order:

CTD0360

Received:

04/07/10

Reported:

04/16/10 07:47

Project:

Blackhawk CMI

Project Number:

[none]

### SAMPLE EXTRACTION DATA

| Parameter                             | Batch   | Lab Number | Wt/Vol<br>Extracted | Extracted Vol | Date           | Analyst | Extraction<br>Method |
|---------------------------------------|---------|------------|---------------------|---------------|----------------|---------|----------------------|
| TCLP Metals                           |         |            |                     |               |                | _       |                      |
| SW 6010B                              | 10D0524 | CTD0360-08 | 50.00               | 50.00         | 04/13/10 12:07 | CJT     | SW 3010A - TCLP      |
| Total Metals by SW 846 Series Methods |         |            |                     |               |                |         |                      |
| SW 6010B                              | 10D0371 | CTD0360-01 | 1.02                | 50.00         | 04/09/10 11:46 | KMD     | SW 3050B             |
| SW 6010B                              | 10D0371 | CTD0360-02 | 1.04                | 50.00         | 04/09/10 11:46 | KMD     | SW 3050B             |
| SW 6010B                              | 10D0371 | CTD0360-03 | 1.10                | 50.00         | 04/09/10 11:46 | KMD     | SW 3050B             |
| SW 6010B                              | 10D0371 | CTD0360-04 | 1.02                | 50.00         | 04/09/10 11:46 | KMD     | SW 3050B             |
| SW 6010B                              | 10D0371 | CTD0360-05 | 1.04                | 50.00         | 04/09/10 11:46 | KMD     | SW 3050B             |
| SW 6010B                              | 10D0371 | CTD0360-06 | 1.09                | 50.00         | 04/09/10 11:46 | KMD     | SW 3050B             |
| SW 6010B                              | 10D0371 | CTD0360-07 | 1.08                | 50.00         | 04/09/10 11:46 | KMD     | SW 3050B             |



704 Enterprise Drive Cedar Falls, IA 50613 \* 800-750-2401 \* Fax 319-277-2425

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Received:

04/07/10

Reported:

04/16/10 07:47

Project:

Blackhawk CMI

Project Number: [none]

#### CERTIFICATION SUMMARY

### TestAmerica Cedar Falls

| Method    | Matrix     | Nelac | Iowa |  |
|-----------|------------|-------|------|--|
| SM 2540 G | Solid/Soil |       | X    |  |
| SW 1311   | Solid/Soil | X     | X    |  |
| SW 6010B  | Solid/Soil | X     | X    |  |

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Termperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericalnc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF-FSS-01.

### DATA QUALIFIERS AND DEFINITIONS

#### ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

Project Manager

| TestAmeric                               |              | Cedar F<br>704 Ente<br>Cedar F | erpri       | se Dr          | ive  | Pho<br>Fax | ne 3°    | 19-2<br>19-2        | 77-2<br>77-2 | 401 d<br>425 | or 800          | 0-7 <del>50</del> | -2401   |              |        | T<br>is       | s this v      | work be  | ing co | nducte       | per analy<br>d for reg<br>ring | gulatory | purpos      | ses? YES                        | >    |
|--|--------------|--------------------------------|-------------|----------------|--|------------|----------|---------------------|--------------|--------------|-----------------|-------------------|---------|--------------|--------|---------------|---------------|--|--------|--------------|--------------------------------|----------|-------------|---------------------------------|------|
|  | MI           | •                              |             |                | /  |            |          |                     |              |              |                 |                   |         |              |        |               |               | R,   | 100    | /1/.1        |                                | 0        | NIT         |                                 |      |
| Address: 94                              | 3 (          | odo                            | <u>Ja</u>   | SO             | D /  |            |          |                     |              |              |                 |                   |         |              | Pro    |               |               |  |        |              |                                |          | MI          |                                 |      |
|  | WA           |                                |             |                |  |            |          |                     |              |              |                 |                   |         |              |        | Proje         | ect#:         |  |        |              |                                |          |             | <del></del> 1                   |      |
| Project Manager:Bc                       | LL (         | CAR                            | BE          | 728            | 4  |            |          |                     |              |              |                 |                   |         |              | Site/L | ocatio        | on ID:        |  |        |              |                                |          | State       | :_ <del>I</del> A               |      |
| Email Address: bil                       | Icarba       | emy                            | 10          | m              | chs  | i-         | CO       | n                   | _            |              |                 |                   |         |              |        |               |               |  |        |              | - 1                            | ,        |             |                                 |      |
| Email Address: bil Telephone Number: 319 | 1 33         | 8                              | 37          | 68             |  |            | Fax      | k:                  |              |              |                 |                   |         | _            |        |               |               |  |        | -            | SB Y                           |          |             |                                 |      |
| Sampler Name: (Print Name)               |              |                                |             |                |  |            |          |                     |              |              |                 |                   |         | _            |        | Qu            | ote#:         |  |        |              |                                | _ PO#    | :           |                                 |      |
| Sampler Signature:                       | 1/9          | 7/                             |             |                |  |            |          |                     | _            |              |                 |                   |         |              |        |               |               |  |        |              |                                |          |             | _                               |      |
| -11                                      |              |                                |             |                | Matrix   |            | ervati   | on &                | # of (       | Conta        | iners           |                   |         |              |        | -,            | Analyz        | ze For:  | ,      | Т            |                                |          | <del></del> | QC Deliveral                    | bles |
| Standard Rush (surcharges may apply)     |              |                                | Composite   |                | v - Drinking Water<br>er S - Soil/Solid<br>er Specify, Other |            |          |                     |              |              |                 |                   | LEAR    |              |        |               |               |  |        | /<br>/       |                                |          |             | None Lével 2 (Batch QC) Level 3 |      |
| Date Needed:                             | pe           | P6                             | 11          | _              | DW -<br>water<br>rater                                       |            |          |                     |              |              | 3               |                   | 1       | 1            |        | <del> </del>  | +-            | -/-  |        | 7            |                                |          |             | Level 4<br>Other:               |      |
| Fax Results: Y N                         | Date Sampled | Time Sampled                   | G = Grab, C | Field Filtered | SL - Sludge DW - I<br>GW - Groundwater<br>WW - Wastewater    |            |          |                     | ,            |              | Other (Specify) |                   | Cin     | 77           |        | 1             |               |  |        |              |                                |          |             | Other.                          | _    |
| Email Results: Y N                       | te Si        | ne S                           | Gre         | E Pi           | us - V   | HNO3       | _        | NaOH                | H2 SO4       | None         | her (§          | / /               | 4       | $\mathbb{Z}$ |        | 1             |               |  |        |              |                                |          | /           | REMARKS                         |      |
| SAMPLE ID                                |              |                                | -           |                | <u>ಸ ಕ್ರ≷</u>  | £          | 오        | Z :                 | r 3          | 2            | ð               | V                 | -       | 1            | -      |               |               |  |        | _            | +-                             | +        | +           | HEMPHICE                        |      |
| 5-1                                      | V00/10       |                                |             |                | 5  | $\vdash$   | $\dashv$ | +                   | +            | +            | +-              | V                 | 4       | +            | 1      | $\overline{}$ |               | -  |        | $\leftarrow$ | +-                             | +        | +           |                                 |      |
| 5-2                                      | 11           | 12 38                          | 4           | -              | 5  |            | +        | $\dashv$            | +            | +            | +               | V                 | +-      |              | +      | 1             | _             | -  | -      |              | $\leftarrow$                   | +        | +           |                                 |      |
| 5-3                                      | 11           | 12:35                          |             | _              | 5  | $\vdash$   | $\dashv$ | +                   | +            | +            | +               | 1                 | +-      | +            | +      | -             | $\rightarrow$ |  | +      | +-           | 1                              | 1        | +           |                                 |      |
| 5-4                                      | 11           | 12:30                          |             | $\dashv$       |  | -          | +        | $\dashv$            | +            | +            | +               | V                 | +       | +            | +      | -             |               | 1  |        | +            | _                              |          | $\top$      |                                 |      |
| 5-5                                      |              | 12:45                          |             | $\dashv$       | _5_  | $\vdash$   | -        | +                   | +            | +!           | +               | V                 | +       | +            | *      | $\overline{}$ |               | -  |        |              | _                              | +        | 1           |                                 |      |
| 5-6                                      | "            | 13:00                          | 4           | -              | 5  | $\vdash$   | -        | +                   | +            |              | +               | V                 | 1       | +            | +      | A             |               | <del>                                     </del> | 1      |              | _                              | +        | +           |                                 |      |
| DUP                                      | //           | 13:00                          | 9           | -              | <u>5</u>   | ╀          | $\vdash$ | +                   | +            | +            | -               | -                 | ٠,      | +            | +      |               | /             | 1  | +      | +-           |                                | +        | +           |                                 |      |
| STP-1                                    | 11           | 13:15                          | C           |                |  | ╀          | $\vdash$ | +                   | +            | +            | +               | $\vdash$          | +-      | +            | +      | _             |               |  | 1      | +            | +-                             |          | $\top$      |                                 |      |
|  |              | -                              | -           | $\rightarrow$  |  | +          | $\vdash$ | $\overrightarrow{}$ | +            | +            | +               | $\vdash$          | +       | +            | _      |               |               | $\vdash$   |        | 1            | +                              | +        | 1           |                                 |      |
| Special Instructions:                    |              |                                |             |                |  |            | <u> </u> |                     | _1           |              |                 | L                 |         |              |        | 1             |               |  |        | CAN          | · nec                          |          | TILE        | 60 4 61 4 4                     | 1    |
| 9/1                                      |              | 4/06,<br>Date:                 | 10          | 17             | 1:30   | Por        |          | d By:               | 17           | 1            | 1               | X                 | ( d .   | , de Da      | te: 4/ | (4/1)         | Time:         | 94   |        |              |                                |          |             |                                 |      |
| Relinquished By                          |              | Date:                          |             |                |  | T          |          |                     |              | Tue          | MY              |                   | a Table |              | /      | 7             |               | 1/   |        |              |                                |          |             |                                 |      |
| Relinquished By:                         |              | Date:                          |             | Time           | :  | Red        | ceive    | d By:               |              |              |                 |                   |         | Da           | te:    |               | Time:         |  |        |              |                                | A        |             |                                 |      |
| D. D. Wilshad D. W                       |              | Date:                          |             | Time           |  | Re         | ceive    | d By                | r:           |              |                 |                   |         | Da           | te:    |               | Time:         |  | er civ |              |                                |          |             |                                 |      |

Received By:

Date:

Time:

Relinquished By: 4

TAL-0033 (0708)



704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613 800-750-2401 • 319-277-2425 FAX

### **Sample Receipt and Temperature Log Form**

| Client ERM /A   | CITY                                   | Pr                     | roject: Back   | nawk CM                                   |  |  |  |  |
|---|--|------------------------|--|---|--|--|--|--|
| City: Rec   | eiver's Initials:                      | CH.                    | Time (Delivere   | g;42                                      |  |  |  |  |
| Temperature Record:   | Thermometer                            | <u>:</u> ,             | Courier:   |   |  |  |  |  |
| Cooler, IP# (If Applicable)  3.0 °C On Ice  Temp Blank  Temperature out of com  | IR - 6199767 IR - 9087694 IR - 6185410 | 12 'C'                 | ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Postal Service ☐ Spee-Dee                                  | TA Courier TA Field Services Client Other |  |  |  |  |
|   |  | Exc                    | Exceptions Noted   |   |  |  |  |  |
| Custody seals present?  Yes  Custody seals intact?  Yes  No  Non-Conformance re | port started                           | Sa                     | ample(s) not received in amples(s) received san Evidence of a chilling emperature not taken: | ne day of sampling.                       |  |  |  |  |
| Non-Conformance re  | port started                           | Temperature not taken: |  |   |  |  |  |  |

\*Refer to SOP CF-SS-01 for Temperature Criteria

H:\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev15.doc